

عنوان مقاله:

Investigating the linkage between vegetation and the dust sources and hotspots

محل انتشار:

اولین همایش بین المللی و هشتمین همایش ملی مرتعداری ایران (سال: 1400)

تعداد صفحات اصل مقاله: 4

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خلاصه مقاله:

The study of the relationship between vegetation and dust storms is of particular importance because one of the most important factors affecting the protection of the earth's surface and its degradation or absence plays a significant role in the disintegration of soil particles. In this research, the role of vegetation in the production of dust centers in Alborz and Qazvin provinces has been studied. To determine the dust days from meteorological hourly data including horizontal visibility, wind speed and direction, and cloudy weather for 14 meteorological stations and images of Modis sensor satellites related to the same days of dust determined from the site (<http://adsweb.nasacom>). (nasa.gov/data) was identified and downloaded for the period 2000 to 2019. The parameters used to track the dust collection center in this study include BTDR₃₁₃₂, BTDR₂₉₃₁, NDDI, and D. NDVI index with a resolution of 30 meters was used to prepare the vegetation map. The vegetation map of the area was classified into very poor, poor, medium, good, and excellent classes and was combined with the dust point zoning map. The number of dust spots in each class was determined to be 278, very poor, 100, average 22, good 14, and excellent 2 dust spots in the very poor class. The results show that the frequency of occurrence of dust reacts rapidly to the reduction of vegetation and in areas where there is no vegetation or poor vegetation, the number of dust hotspots has increased. In the southern parts of the region, which have less vegetation than other regions, the number of dust spots is higher.

کلمات کلیدی:

Alborz, Qazvin, Satellite images, NDVI

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